VOLUME XV August, 1942 Price 5 Cents
Number 8

NORTH AND SOUTH DAKOTA HORTICULTURE

Judge J. T. Medin, Sioux Falls, whose constant endeavor in his vocation is to salvage as much as possible of the erring human flotsam that comes before him and persuade them to return to ways of honestry and uprightness. This view shows him in his favorite avocation, horticulture.—Courtesy of the ARGUS-LEADER.

Come to the annual meeting, at Brookings, Aug. 31st & Sept. 1st.

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

Aug. 1942

VOL. XV. August, 1942 No. 8

Entered as second class matter at the Post Office at Sioux Falls, South Dakota, under the act of August 24, 1912. Original Office of entry, Pierre, South Dakota.

Membership in the South Dakota State Horticultural Society is one dollar per year; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member, per year.

Published monthly at Sioux Falls, South Dakota, by the North and South Dakota State Horticultural Societies. Address all communications to W. A. Simmons, Secretary, Horticultural Office, Court House, Sioux Falls, South Dakota.

TABLE OF CONTENTS

THE BANK SWALLOW

By

O. A. Stevens

O. A. Stevens

The bank swallow is one of the most widely distributed of birds. Perhaps it is one of the most numerous of all birds, considering its commonness and its local abundance. It seems to be pretty much the same bird all over the northern hemisphere. All of the American birds are regarded as one form, but a few variants have been described for the eastern hemisphere. In England the bird is known as sand martin. The French name is river swallow, the German and Swedish, bank swallow.

In America this bird occurs in summer from northern Alaska and northern Quebec to southern California, Texas and Virginia. In winter they fly south to Brazil and Peru. They have been recovered as far south as Tucuman, Argentina (a little south of Bolivia). The Roosevelt expedition in eastern Brazil met them frequently. One bird banded in Indiana was found four years later in Peru.

On the other side of the world, they occur all over Europe and northern Asia from about the latitude of 70 to the Altai Mountains of Mongolia. They seem to be nearly absent from India where a closely related, non-migratory species occurs. The bank swallows breed to some extent in Sicily, Tunisia, Algeria and Egypt. They migrate to southern Arabia, eastern and southern Africa.

These birds are well known by their habits because they nest in colonies in vertical banks and are seen flying in large numbers about such places. Individually, the bird is rather insignificant, brownish-black on the upper parts, gray underneath with a dark band across the breast. In contrast to the barn swallow, the tail is short. After the young have left the nests, the birds are to be seen in large flocks, but several species of swallows are often mixed together in such flocks. On July 20, 1940, shortly before sunset on the Lower Souris Refuge, Adrian C. Fox and I saw bank (mostly) swallows gathered on fence wires along a road. They flew down in the road, back to the fence, away and back again as cars passed along the road, thus changing their positions frequently. From sample counts we estimated the total number to be about 3,000.

These birds are quick to take advantage of a new nesting site. The Red River at Fargo does not offer many good places. Some years ago a ski slide was erected and a part of the bank near the water cut out. This verticle portion quickly acquired some swallow holes. On the Sheyenne River near Kindred, the spring flood of the river cut around the end of a dam, leaving a high, vertical bank. In late summer I counted about 250 holes in a few rods. The number of holes is said to be much greater than the num-

Continued on Page 89

NEWSLANTS

By
Harry A. Graves

H. A. Graves

Former North Dakotan and still member of our society, C. F. Pruefert, now of Clermont, Florida, laments again the fact that peonies do not thrive in his new location. He writes of 30,000,000 citrus trees in the central part of Florida where he now resides. The Black Walnuts which he received as a premium this year were doing well when he wrote us in mid-June. After all, black walnuts can't be so hard to move.

An Amur privet hedge in bloom —the first I had seen here—made it necessary to call in Professor Stevens in the identification. This hedge would perhaps average 2½ feet in height and was carrying a nice amount of white blossoms. Since it had survived the past two winters with very little loss of plants, there may be some hope for this hedge for the Northern Great Plains. Cotoneaster, a favorite in the past, has taken quite a beating this year as a result of scale injury.

My mother is quite elated over the fact that her Solange peony finally bloomed fully this year. It has been disappointing in the past and quite contrary about more than half opening up from the bud stage. While we are speaking of peonies, Mrs. Kannowski, former president of the North Dakota Society, showed me some wonderful blooms this season of the peony, Mrs. A. M. Brand.

This has been a banner Catalpa year in North Dakota. Several fine specimens have bloomed profusely in Fargo, Bismarck, and on the Experiment Station plots here at the college. A seedling four years old had two large clusters of bloom in mother's garden. No doubt there were many others in the state that bloomed also. A Catalpa in heavy bloom is a horticultural treat worth seeing.

A visit to the Great Plains Field Station at Mandan recently found Vice-President Baird just back in the office after returning from his wedding trip. Congratulations on behalf of the North Dakota society!

While at the Mandan station, Tom Killand proudly pointed out a planting of Floribunda roses. Listing a few outstanding ones: Dagmar Spaeth, a semi-double pink; Gruss an Aachen, a double pink; Cherrio, a deep pink; and perhaps best of all, Donald Prior, a semi-double red. Betty Prior, a single pink, was blooming very profusely, and World's Fair, which resembles Donald Prior somewhat but does not bloom as long, was arresting. In any other company it would have been very outstanding.

North Dakota's Victory Garden Program has been quite successful. if seeds purchased this year is any indication. A state-wide questionnaire directed to county agents who in turn contacted seed dealers in their counties has indicated that there has been a 46% increase in garden seed sales, with only seven counties yet to hear from. Some of the plots planted in quack grass infested areas last spring and which consequently caused garden committees considerable concern, have been well hoed, and the quack grass controlled in spite of the wet weather in the early part of the garden season. Many of the cities have sponsored worthwhile garden contests. Rural gardens are in the main, larger than for the past several years. On the other side of the ledger, frost has taken a toll of tomatoes and some of the vines in a few counties. Northwestern counties were injured June 12 and southern counties immediately east of the Missouri River were injured June 22. Oddly enough, A. L. Truax's garden, at Crosby right in the center of some of the worst frost injury, was practically untouched.

Cauliflower, difficult to raise in many gardens, has been making creditable heads in our own private plot. With six varieties of tomatoes and seven varieties of sweet corn to watch, we are looking forward to some good variety sampling later on in the season. North Star hybrid sweet corn planted July 7, was three inches high in a week. A writer in one of our National horticultural magazines reports this variety as especially desirable for late planting in the northern tier of states. Barring an early frost, we will know more about that October 1.

We must not be outdone in this matter of poems by Hi Beebe, so we close with the following, clipped from the *Seed World*, author unknown.

A TOAST TO THE FARMER

Let the wealthy and great
Roll in splendor and state
I envy them not, I declare it
I eat my own lamb
My chickens and ham
I shear my own fleece and I wear it
I have lawns, I have bowers
I have fruits, I have flowers
The lark is my morning alarmer
So jolly boys now
Here's God Speed the plough
Long life and success to the farmer

BEEBE'S PHILOSOPHY

By
H. E. Beebe

H. E. Beebe

WE WILL WIN WAR

By the time this is read, harvest in the Dakotas will be at its height, and we will know more about planning for the shortage of labor, which will be greater in 1943. Should not we Horticulturists plan now so that in 1943 our gardens will require less hired labor. This also may mean a reduction in the area of lawns to be mowed and trimmed. I believe that flower gardens where they can be seen by the passer-by aid morale, but perhaps the annuals grown out of sight of the public, might be omitted or replaced with potatoes, as transportation will be more of a problem, and potatoes are bulky.

My old text, "More water per square foot," is repeated and another added, "More brains per square foot," Why not make the rows closer together, and grow only those things that past experience has shown, good producers and eaten clean.

Talking about war, Director Taylor found a letter written by our President Emeritus N. E. Hansen, to Joe Parmley, written in 1939, when Joe was boosting the Peace Garden. Hansen wrote, just three years before Pearl Harbar," I think one of the best safeguards for peace is to have one or two highways away from the Pacific Coast and running northwest to Alask.a This would guard against submarines in case of war, and it would have great value from the commercial standpoint." Senator Langer from North Dakota, is now advocating such a highway, showing that Hansen is a deep thinker along other lines than horticulture. If Nels had been living about the time of Isiah he would have been called a prophet.

DOLLAR DIVIDENDS

This magazine is worth more than the dollar a year membership fee, which Bro. Simmons accepts, but in addition there are probably many labor saving devices that our members know of which would be worth more dollars to the readers.

Right now I am going to give you one—the making of a practical flower holder that will fit any vase or bowl and will really hold the flowers in position. Most flower holders are OK for zinnias or flowers with steel stems, but are very sad when used with bouquets containing several kinds of flowers.

The Dakota Workable Flower Holder is made by going out in your chicken yard or the neighbors, and cutting a piece of the hexagonal mesh chicken wire about 12 inches square, and then wadding it up to the size that will fit the vase or bowl. You will find that the many openings will hold the frailest stems, upright, to the top of the holder, and in any position. The wire costs two cents.

Talking about improvements, a week ago I found the good banker gardener of Bowdle—Henry Gross in his potato field that looked like a full acre, and part of the potatoes were in blossom. He was using a hoe made for him by the Bowdle blacksmith, from stiff steel about ten inches long and about two inches wide. For getting small weeds this hoe covers 65% more area at a stroke, on account of the blade being about one half the width of an ordinary hoe, it passes thru the soil a great deal easier.

At one of our meetings Wallner showed the hoe that he made with a diamond shaped piece at each side, designed to hook out single weeds close to plants. When a person looks at the array of tools an ordinary small town carpenter uses, it would only seem logical that a gardener should have more varieties of tools, for the different seasons of the year and for different crops, and for use in different soils. What have some of you found out, that work?

AMATEURS ADD APPEAL

Here is an idea that I thought up, after Mrs. Beebe had planted lettuce and radishes in part of our flower garden, this spring. Why not in every vegetable garden plant every seventh row to flowers. Then going out to hoe the garden in the morning, would be more of an adventure and think of the flowers that you would have for the church, library and another person who does a lot for a town and gets very little praise, the newspaper Editor. I am in earnest about this, I believe it would add a great deal to life in the Dakotas, and I nominate California poppies for the first flower row.

FAR FLOWERS

Vera Mae, the daughter of the efficient "Central" at McLaughlin, Mr. Dennerly, writes from Elgin, Oregon, "I had some Oregon cherries last nite so I thought Id drop you a card. Im having a nice time and the country is wonderful but I wouldn't trade good old S. D. for it. South Dakota has an appeal, and as Geo. Gurney says, "We may not have cherries, but we do grow peaches."

From the other side of the United States, in today's mail is a card from my sister, Mrs. Ellwood

Perisho, autoing east," I have seen many hollyhocks everywhere. Since we entered New York, we have seen trees loaded with red cherries like jewels." Evidently this must be cherry time some place.

To get back closer home, the Argus Leader gave about six inches double column with a fine heading to the "Six Hundred Peony Blooms," in the garden of Mrs. C. K. Knutson at Presho. What interested me was her artistic combination of colors in which she used striking combinations with back grounds instead of the usual idea of harmony, and shading.

When down in that country about the last of May, I noticed a short blue blossomed plant, lining both sides of the highway approaching the Rosebud bridge from the east. Prof. McCrory writes that Dr. Snyder identified this as wild Candytuft, it was new to me, but probably the wild flower gardeners such as Dr. Thoms, of Vermillion, have had it in their back yard for years. A year like this of unusual rain fall, brings into prominence many flowers whose blossoms ordinarily would be too small to be noticed. Porter will recognize it as Arabis Albertina.

HORTICULTURAL HA HA's!

The Supplement to last weeks Aberdeen American, showed two farmers conversing over the fence, "Tire shortage must be serious, F. X. orchards been in bloom a week, and city folks ain't bothered it yet."

The other day an old timer sheep herder came down from the McPherson County hills to Ipswich for the first time in years. When he stopped the old Model T, on our oiled main street, he got out, examined the surface, scratched it with a nail, and said, "no wonder they built the town here. Ground is way too hard to plough."

Now and then I put some poems in this column just to identify where some familiar sayings come from, and this time it will be the old one, that may interest those who think they have troubles, and is by a man who lived about two hundred years ago, when people had about the same ambitions and instincts as in 1942.

So naturalist observe a flea
Has smaller fleas that on him prey;
And these have smaller still to bite 'em
And so proceed ad infinitum
—Jonathan Swift

FLOWERS AND BOOKS

Mabel Richardson who has completed a long period of useful service as Librarian in the University of South Dakota, recently wrote a poem, likening various books and tales, to flowers, and here it is for the lovers of both flowers and reading or either.

Here in this garden
Of books on their shelves
Let us choose a nosegay
for ourselves.
This one is a lily,
That one is a rose
Here is a violet
There a poppy blows.
In this book of proverbs
Are blue for-get-me-nots,
From stories of the olden time
We have mignonette in pots,
Ivy leaf and laurel
From tales of heroes crowned;
And cosmos from travel
All the world around.
For sermons from the pulpit,
There's Jack—in stately pose;
And here's a pensive pansy
Done in sober prose.
Elder flower and rambler
From old-age and youth;
Night-shade and bitter sweet
From falsehood and truth.
From a page of sorrow
A spray of cypress vine;
And here is Love's old tangle—
How the tendrils twine!
Blue bells for jingles,
That every urchin knows,
And a leaf of lotus,
From books that make us doze.

THE BANK SWALLOW

Continued from Page 86

ber of nests because the birds frequently encounter a stone or root, desert the burrow and start a new hole. Nests in the sides of unused wells have been recorded, and a case or two of nests in piles of sawdust.

It is reported that the digging is accomplished largely by the bill. The feet seem to be used at least to work out the loose dirt. The hole usually slopes upward at first, extending two or three feet, and is enlarged to about a sin-inch cavity at the end for the nest. Quite a little nesting material of grass, straw and feathers is used. The feathers are said to be added after the eggs are laid. Six is the mast common number of eggs. They are white, nearly three-fourths of an inch long.

A few years ago, Mr. Leonard K. Beyer spent considerable time studying bank swallows in Pennsylvania and New York. By digging a pit behind the nests and carefully working up to them, he was able to watch developments in the nest. He states

Continued on Page 95

MANITOBA NEWS LETTER

By

W. R. Leslie

W. R. Leslie

The Vulgaris lilacs, or French hybrids of common lilac have been a grand show at Morden this spring. Over two hundred kinds were in bloom. Some of these are displaying flowers here for the first time.

In the multitude of named varieties are many which resemble one another closely. Durability of freshness, retaining depth of colouring and possession of fine fragrance are considerations in valuating varieties, in addition to the general features of thrifty, shapely bush, numerous flowers of large size, well placed, and which stand forth boldly.

There are many fine single whites. Vestale seemed to be of highest rating. Mme. Lemoine is a dependable double white. More aristocratic doubles were Edith Cavell and Ellen Willmott. This pair is a day or two later. The former is a proud variety with usually two companion spikes, long and moderately full, standing forth all over the growthy bush. The buds are yellowish but the open flowers are radiant white and moderately scented. Ellen Willmott has a broader truss of flowers which are denser and somewhat less large and have been less fragrant. A dozen other white varieties deserve high rating.

Two new, very large dark reddish-purple single varieties bloomed. They are Prodige and Etna. Both rate highly. Mme. F. Morel is lighter in shade. It remains a very much esteemed lilac that blooms profusely every year and is attractive to the eye and to the sense of smell over a period of many days. Rochambeau has huge deep purple flowers in large long trusses, with white touches on the edges of the petals. Gilbert, Christopher Columbus, and Marechal Foch are also large. Their colour is more towards the violet shade. Among the better known dark singles that retain esteem are Ludwig Spaeth and Toussaint L'Ouverture. The latter is somewhat the darker, particularly as it opens. Congo is among the earliest. It is reddish soon after opening and then fades to a rosy violet. Reamur has not been as thrifty as Danton but is more reddish. Volcan is dark purple with wavy petals that open late. Pasteur holds its dark purple calous very well. Its flowers are more shapely than those of Volcan.

Lilacs are common and esteemed large shrubs on home grounds and park areas. Well cared for, common or vulgaris, lilacs will remain thrifty for many years. Care includes clipping off the flower truss or head as soon as the blossoms fade, cutting out two or three of the oldest main branches of long established bushes down near the ground, permitting some three or four lusty young shoots to spring up as replacements, and promptly eliminating surplus sucker growths, by treating them as weeds,—or as plants out of place. The major operation of cutting out over-age main branches will effect rejuvenation. Lilacs have robust appetites and will enjoy generous applications of rotted barnyard manure, or acid peat moss, and two or three handfuls of commercial fertilizer. These may be lightly forked into the upper four inches of earth. Grass and weeds are enemies of flowering shrubs and are accorded no quarter.

Bush honeysuckles are operated upon also to remove senile main branches. New shoots from near the roots are encouraged to develop in a balanced manner to renew the beauty of the planting. Faded flowers are permitted to run their course and adorn the subject with showy berries. Old bushes deserve fertilizing.

Production of seeds is the heaviest drain on the vitality of shrubs. Vanhoutte spirea has been profuse with blooms this season. This and other early spireas will be in much better heart in 1943, if most of the old branches are clipped out as flower petals fall. New shoots will grow strongly and the subject will be better equipped to withstand the trying rigors of next winter.

All herbaceous perennial plants benefit if flower heads are removed prior to the setting of seed. A number that die after maturing a heavy crop of seed would prove hardy and showy next spring, if the fading flowers had been snipped off promptly.

A sin of commission is the rubbing off of all young shoots trying to arise from the lower parts of old bushes.

The Dominion Entomologist has supplied suggestions towards combating the Columbine Borer. This assistance was sought by the Morden Experimental Station to provide numerous enquirers with practical information.

Columbines are popular herbaceous perennials. They will grow in the open border and they also

Continued on Page 92

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

GARDEN NOTES

By

W. E. H. Porter

W. E. H. Porter

Once more summer's glorious zenith passes and slowly but surely we travel the decline to winter's living death. However, here are some notes of enjoyment which nature has bestowed. May 29th. My year old 2 inch high Townsendia exscapa, large purple rayed daisies expand; altho a composite, I believe it is also known as Easter lily and, in the grove snowy masses of crabapple bloom scent the air with their heavy fragrance. May 31st. Heard in quick flight and later saw, a humming bird poised over yellow flowering currant.

For the first time in 44 years the waters of a large slough almost lap the barn and chicken house, a veritable paradise for aquatic birds; pintail ducks seem to be in the majority but prettiest are a pair of canvas backs and buffle heads, nesting on a partly submerged manure pile, hauled out during the winter for smudges. It is all remeniscent of childhood days in London when for a treat, we would be taken to St. James park to see and feed the ducks on the ornamental pond. Note, first Triumph potatoes are up and the grove is full of Arkansas King birds. June 4th. Heard and saw a Baltimore oriole carolling from a wire fence. June 5th. For me this is a day of sad memory, heralded by expansion of dark orchid purple bloom of Geranium subcaulescens, also a yellow buttercup and large marigold-like flowers of Actinea herbacea; as if by magic my eleven plants open simultaneously only a few inches above mat rosettes of linear foliage. In the June issue Mr. Graves' allusion to burn on Daphne cneroum is most timely and by my own observation I am convinced that Prof. Rockwell's explanation is the correct one. For instance, my own plants of D. cneorum and mezereum came thru the winter in fine shape, the former with flower buds and foliage and the latter with flower buds down the stem ready to open, and then in April, sap that should have been there for spring growth, being already used up and no more obtainable, both shrubs killed back and only now is mezereum putting out scanty leafage and cneorum, a meager show of leaf and flower buds. June 8th. Black Tern, also known as mosquito hawks, dart over the duck pond, also linaria faucicola is the first toad flax to come into bloom and so this rock garden gem establishes its status as a hardy perennial in N. D. Ground color of flowers is amethyst violet with orange throat and long proaruding lip with spur length of flower and lip combined, resting on and thru bluish silvered linear foliage. Also new dwarf lilac microphila expands, flower color of common lilac with rather dark pink budding and lilac fragrance, a well mannered dwarf bush said to bloom all summer and seems to have no desire to monopolize territory of its neighbors, an undesirable trait characteristic of most lilacs. A local paper just received from North Ireland, states that the cuckoo was heard in County Tyrone on April 17th., which reminds one of the jingle, descriptive of habits of this bird. "In April come he will, in May, sings all day, in June, changes his tune, in July prepares to fly, in August, go he must." June 11th. May Queen poppy in bloom; glancing thru Bailey, I think this stoloniferous plant must be a hybrid of orientale and bracteatum, as it shows the latter's absence of black spot on corolla; the beauty of it is that from a rooted slip, in a few years you have a desirable patch with no effort on your part and, as the years go by, flowers get more double and larger. June 13th. A sunny day follows light frost. My first hen shows up with 11 very active chicks. I do not set hens, but let this hardy descendent of the jungle fowl attend to such matters, same as our game birds in my peaceful grove, merely throwing out a little wheat daily on a bare spot and thus, in a carefree way, raise all the poultry needed and even after culling, sometimes more than I have winter housing for. June 16th. A typical June day, shade temperature 74 with pleasant cool breeze and light showers, soon dispersed by bright sunshine. Saw a newly emerged Red Admiral (V. atlanta) butterfly sipping nectar from clumps of rockets which are now slowly passing their zenith of color and fragrance. Columbines also at their best, the most admired being the large spurless akitensis, one of which shows an interesting variation, being twice the height of the rest and having a dark overtone shade of purple clambering monkshood over both calyx and corolla. Ixiolirion lily also coming out, in color and umbels of clustered flowers; it is really an understudy of the blue Nile lily, tho the plant itself shows no resemblance to the massive grandeur of the latter, the flowers being carried on an almost bare scape. Lucky are we that this denizen of south temperature zones is perfectly hardy in North Dakota.

My garden provides a seemingly endless contact with weeds, the latest to appear is that dreadful purslane. Regarding my collection of toadflaxes, it must be admitted that Linaria repens has little to recommend it as a garden subject; a rank, untidy

Continued on Page 94

QUESTIONS AND ANSWERS

By
S. A. McCrory

S. A. McCrory

The most common questions directed to this dpeartment during the last few days has been accompanied by a tomato plant showing one of three diseases. Dr. W. F. Buchholtz has prepared a brief publication which I am submitting as an answer to

WHAT IS WRONG WITH MY TOMATO PLANTS?

1. Alternaria leaf spot and early blight.

This disease is caused by a fungus known as *Alternaria solani*, which infects seedlings to bring about "collar rot" and later the lower leaves to bring about a brown irregular spot with concentric rings of ridges, resulting in a target-like appearance. The lower leaves may finally turn yellow and drop off, exposing the innermost fruits to sunscald. Fruit infection may occur through stem scars, cracks and wounds. Circular dark brown or black sunken spots are found which become covered with a black velvety growth.

This disease is commonly present on tomato seedlings grown in infected greenhouse or hotbed soil. It may also overwinter in soil or on infected tops in the garden. Its spread is usually checked by hot weather, particularly hot dry weather. It is seldom extremely serious in the home garden where highest quality is not necessary.

Control: Purchase disease-free seedlings grown in clean soil by a reputable grower or produce them at home in "tomato-clean" soil.

2. Septoria leaf spot.

This is a *very serious* disease caused by *Septoria lycopersici*, which produces uniformly small grey spots with a black border. Finally the spots enlarge slightly and small black specks form at their centers. The lower leaves become heavily spotted first, but spread is rapid to higher leaves and succulent stems. Heavily spotted leaves turn yellow and fall off progressively from the bottom to the top of the plant. Such defoliation results in sun-scalded, prematurely ripened fruits. This disease is carried over in old tomato tops.

Control: Rigid removal or plowing under of old tomato tops and rotation of the tomato patch in the garden are essential. Once some leaves are infected, to achieve control the plants must be sprayed at least twice, perhaps three times, at biweekly intervals with Bordeaux mixture as per directions on the carton.

Purchase or home production of disease-free seedlings in clean soil is again desirable.

c. *Fusarium Wlit*

If tomato plants are wilted, yellow, and stunted without the presence of leaf spots and the lower portion of the stems brown internally, they are afflicted with Fusarium wilt. The plants are doomed. They may not die for some time, some may not die at all, but will remain unthrifty and unproductive.

Control: Cure is impossible. Prevention is by purchase or home production of disease-free seedlings grown in clean soil and by not planting tomatoes again for at least three years, five preferably, on soil that has harbored wilted plants. Wilt-resistant varieties, such as Marglobe and Prichard are too late for most of South Dakota.

MANITOBA NEWS LETTER

Continued from Page 90

will tolerate shady locations. Unfortunately, many gardeners have lost all of their prized plants due to borer injury. The caterpillar first attacks the stems. It bores inside the plant and down into the large tuberous root. It eats the inner part. Fully grown, the borer is an inch and a half long, salmon colour on the back with a pale stripe down the middle.

All parts of infested plants are removed as soon as injury shows. An early treatment employed was the injecting of one ounce of carbon bisulphide into the soil close to the roots of each plant. This has been superseded by the use of derris dust of 1.0 per cent rotenone content, applied in 4 applications over a period of two weeks commencing about May 5, at the rate of 250 pounds per acre at each dusting. This is to kill the eggs and is made during the time the eggs are hatching. The dust is applied as a covering film to the soil about the plants and to the foliage of the columbine. Once the larvae have gained entrance to the plants, further dusting is useless. A cheesecloth bag may be used to apply the dust. A plot, 8 feet by 9 feet, growing 20 columbines, would be dusted with increasing quantities of dust as the foliage becomes larger. Good results came from the use of 5, 6, 7 and finally 8 ounces per plot. The control was about 90 per cent.

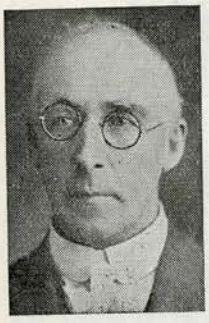
A second procedure without any dusting or spraying has been effective. It involves transplanting the Columbine plants to a new location in October, or in early spring before the eggs of the borer hatch. The top inch of soil must be knocked away from the crown of the plant so that any eggs lodged there will be eliminated. The main ball of soil adhering to the roots of the plant may be left so that the transplanting operation involve but small shock to the columbine. The plants will bloom well when so moved. Newly hatched larvae can crawl but a short distance, certainly not more than 15 feet.

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

SECRETARY'S CORNER

By

W. A. Simmons



W. A. Simmons

Having had white flies, mealy bugs and red spiders on my house plants, sometimes all of them at the same time, I claim to be somewhat of a "corner sewer" on pests. At present it is the red spiders, so named because they make one see red, I suppose, as the pests are black, looking much like an animated speck of dust. It seems incredible that just a few of these small insects can do so much damage, taking all the color out of an amaryllis leaf in a few days and completely killing a good sized plant before one wakes up to "whats eating it."My scientist son brot down his microscope and reported the little beasts had horns like a rhinoceros and teeth like a Jap. As my eyes are not what they once were, before the girls got to wearing them short, I was unable to fully verify that description but I took his word for it. Most authorities advise turning the hose on them, but I like to capture them and squeeze them to death with my fingers, after giving them a good cussing out. Mr. Max Pfaender writes from Oklahoma City: "It is a real pleasure to read our little magazine regularly. I have changed my address as below; please mail magazine to new address. I always read what you, Frank (Wallner) and Mr. Leslie write. I have a good V garden this year. Lots of corn borers here but no cucumber beetles. Have had to date (July 11th.) lots of cucs, beans, peas, beets, carrots, Bermuda onions, potatoes, lettuce, parsley, raddishes, cabbage, turnips and, soon will have Buttercup squash, cantaloups and tomatoes." He don't seem to have overlooked much that the seed box contained. Here is a further and somewhat scientific item about red spiders, taken from the June GARDEN DIGEST who in turn, gives credit to the MARKET GROWER'S JOURNAL: "In tests just completed at the U. of Calif., red spiders were quickly eradicated with heavy applications of 2% phthalic-glyceryl alkyd resin in water. The spray also destroys the ova on the infested plants. The spray spreads well and only one application is necessary." If the spiders were required to pronounce the name of this drug it probably would result in so much injury to their "jaw tackle" that further measures would be unnecessary. The same issue of GARDEN DIGEST has a good alibi for the lazy gardener, taken from GARDEN LIFE and written by W. F. Schregardus. In beginning the article he quotes B. Y. Morrison, as follows: "Do not take your garden too seriously, as no garden is worth it if you do not get any fun out of it." Excellent advice. Then he presents 3 don'ts and the reasons for them; "1st. Don't spray your flowers or shrubs. In a large garden this will save plenty of pump strokes. The time usually spent in spraying is wasted or worse; it kills the friends who would do the work for you. Take the aphids for example. Probably more spraying is done to kill these plant lice than any other pest. What happens if you let them multiply unsprayed? Soon you will see the adults and then the larvae of the ladybug on the infested plants. In a few days not an aphid is visible, all devoured by the voracious little beetle. Application of poison sprays, either contact or edible, will usually kill off all your beetle friends but will leave enough aphids to restart the race, and then you spray again, etc., etc. Leave your Spirea vanhouttei unsprayed some spring; watch the aphids gradually cover the young shoots; then some day you see a ladybug on some twig, hunt for a larvae. When you see what they accomplish in a few days you'll be tempted to let them do all your aphid extermination. Of course if some beetle or bug audaciously thumbs his nose at you from some valued plant don't stand idly by, but swat him individually, hip and thigh. If there is some type of plant that persists in having bugs or blights, don't spray it but throw it away. 2. Don't sprinkle. This will save time and help the plants, but may not save water. When you sprinkle you tell the plant roots to come to the surface for their moisture. Then come a few hot days 'too hot to sprinkle' and your plants just fold up. Sprinkled plants so often turn out to be sissies. Refrain from sprinkling so that the roots will be forced to go down for their moisture. Should the ground become really dry, soak it thoroughly. Incidentally, light sprinkling of the lawn does not help at all. 3. Don't cultivate. Raise perennials and group them so close together that when mature they will shade the ground completely. Weeds can't get sunlight and won't grow, and you don't have room to get a hoe around the plants for cultivation. Have a mulch of an inch or more of peat of leafmold, which not only keeps weeds from starting but keeps the ground cool and moist. With the aid of these two ground covers cultivation should be taboo till the plants mature and the foliage thins out. Naturally, weeds should be pulled whenever they show in vacant spots."

George Washington's fixed agreement with his tennant farmers called for certain acres to be "planted to apple trees, and kept fenced and in good tilth." —ILGENFRITZ ORCHARDIST.

BOOK REVIEWS

By
Mrs. F. Briley

Mrs. F. Briley

Bio-Dynamic Farming and Gardening, by Dr. Ehrenfried Pfeiffer. 18 illustrations 1940. Published by The Anthroposophic Press, 225 W. 57th St. New York, N. Y. Price $1.25 paper or $2.00 cloth.

One year fertilizer was the rage with farmers and gardeners, then it was vitamin B1, now its bio-dynamic farming and gardening and, if you want to know all about it, read this book by Pfeiffer. The originator of this method, Rudolf Steiner, gave the basis for this text. The author relies upon long years of experience. The practical insight which has come from the management of his own farm as well as from the contact with the management of farms in nearly every country of Europe represents the basis of his experience. This has been broadened by journeys to North America, North Africa and Asia Minor, for the purpose of observation and study. There are many appealing things about the Bio-Dynamic program. The BioDynamists' vegetables are more tasty, more nourishing, more healthful. Their livestock, fattened on Bio-Dynamic feed, are also more immune to disease; their milk and eggs are of higher quality. Every horticulturist will want to read and possess this book.

25 Vegetables anyone can Grow, by Ann Roe Robbins, 1942. Published by Thomas Y. Crowell Co. 432 Fourth Ave. New York, N. Y. Price $2.25.

This is the book all gardeners have been waiting for. There is a chapter for each of the 25 vege tables which contains detailed information under the following headings: history, food value, culture, habits of growth, types and varieties, how much seed to buy, planting, when to plant, how much and where to plant, soil, cultivation and care, harvesting, storing, canning and usual recipes to make eating the vegetable a pleasure as well as a duty. If you have thot that most vegetables should be boiled, you will be surprised at the many other ways they may be prepared to make for good eating. Then there are frost-zone maps, vegetable garden plans, chapters on storing and canning. The text is very easy reading and very understandable. The cover can be washed, a fact that is a joy to all librarians. All in all its what book agents call a "honey." You most certainly will want "25 vegetables Anyone Can Grow" on your garden book shelf.

GARDEN NOTES

Continued from Page 91

growth and a most vicious root run that envelopes and eventually suffocates its neighbors. And now geraniums take up the color theme in blues, pinks, whites, etc. A new, neat, attractive, hairy, somewhat glandular dwarf is Borsch's Russell Prichard, which seems to be a variety of Grevilleanum, flower a dark shade of rose, much the color of sanguineum and about as large, but the plant has not the straggling habit of sanguineum. Pleasing indeed are the large pendant flowers of English blue geranium, sylvaticum, I think, now run wild over the garden and grove; on expansion the color is a pale Moorish blue, a hue of exquisite charm, changing later to campanula violet. June 25th. Following a few days of winter in summer, with high N. W. winds, cloudy skies and temperature never higher than 55 but no actual night frosts, when bodily comfort demanded all day kitchen fires, a needed light rain commences from the southeast and on these wind-swept prairies, the plow changes mustard fields from a bright yellow to the healthy black brown of our North Dakota humus.

NORTH DAKOTA HORTICULTURE SOUTH DAKOTA

MEETING YOUR WOOD NEEDS

By
Frank I. Rockwell

F. I. Rockwell

People depending on railroad transportation may find themselves short of fuel this winter according to information from administration sources. The tire situation may prevent procurement of supplies by truck. Tie-up of transportation for war purposes may affect not only our fuel supply, but our supply of wood for other purposes, such as fence posts, farm repairs, and other buildings. How can this situation be met?

Obviously, utilization of any fuels now going to waste should be of first concern for everyone. All over the Dakotas are dead and dying trees, dead and dying branches of trees, going to decay when they should be cut and worked up into wood to help supply next winter's fuel needs. If the owners of this wood do not need it, there are many others who will be glad to have it, provided it is made available. The City of Brookings has offered to haul away any trees or branches property owners wish to trim off their trees. Such trimming might do much to improve the appearance, and the wood given the city might be used to heat many needy homes. Usually it pays to cut away considerable green wood also if one is to do a really good job of tree trimming.

In some parts of the state are large numbers of insect and drought-killed cottonwood and other species suitable for rough lumber. Many farm wood lands, old timber claims, and even some of the newer windbreaks and shelterbelts have other trees in addition to the dead and dying, which could be used to supply some of the fuel and other wood needs without injury to the value of the grove. Indeed, thinnings of crowded and partially suppressed trees and im provement cuttings of defective and other less valuable trees, can often be made which will definitely improve the value of the farm woods, and aid in the growth of the remaining trees.

Every effort should be made to utilize home supplies of wood and lumber instead of adding to the burden of the railroads or wearing out tires during this critical period. In many places in the Dakotas, home-grown trees could be made to supply part or all the wooden material for each of the following uses:

Temporary feeding sheds and poultry houses
Corral poles — Fence posts
Feed racks — Fuel

Rough lumber for building repairs and construction.

The lumber can be cut by small portable sawmills. Posts from cottonwood and most other woods need preservative treatment with coal tar creosote, or in solutions of pentachlorphenol or zinc chloride. Such treatment can be carried out by any farmer from instructions furnished by the county extension agent or the Extension Forester at Brookings, at a cost ranging from 6c to 18c per post, and will make even cottonwood, basswood, or pine posts last many years.

Whatever can be done to supply our needs of wood products right at home will help to relieve the transportation situation and therefore aid in winning the war.

THE BANK SWALLOW

Continued from Page 89

that the opening of the burrow is at first about 2½ inches wide by 1½ inches high, flattened above, but tends to become larger and more rounded by wear. He noted that the birds played with feathers in the air. In one case, several birds in succession caught a floating feather and carried it for a few moments. Occasionally they brought a feather or straw and placed it in the nest after the young were some days old.

Beyer points out how human activities are both a help and a hindrance to the birds. Some nests are destroyed by gravel and sand removal but fresh banks are opened and in many cases these are more desirable than the old ones Apparently man's activities are helpful in the main Swallows are of course beneficial because they feed entirely upon insects. Beyer observed that the old bird gave its entire catch to one nestling, not a part to each as is done by many birds. In one attempt to watch a nest all day, he listed food brought 115 times in 15 hours, usually at about five minute intervals.

Spring rains now, the kind that paint the grass green and pull out leaves on bushes and trees, even while you are watching.—Ruth Countryman.

Only reason I never plant a garden is that my wife's cousin is in the business of getting up seed catalogs and it always makes trouble in the family to make a liar out of kinfolks.—Foxtail Johnson in THE PRAIRIE FARMER.

FRUIT & VEGETABLE NOTES

By
F. X. Wallner

F. X. Wallner

W. A. S., City Editor and columnist of the ARGUS-LEADER, eldest son of our Secretary, has turned out to be quite a gardener and tells tales about tall potatoes, in which the children become lost in the dense growth of the tuber tops. He got his garden lore in our gardens in his school days, pulling weeds and hoeing potatoes and recalls the time we thot he got lost in the potato patch he was hoeing. After an hour or more, a thoro search was made by a group of boys going up and down between the rows, when a boy stumbled over him. The boy thot he was asleep but he claimed he was pulling creeping jenny. The annual South Sioux Garden Club picnic on June 28th, divided into two groups on account of the rain, part of them had their lunch at Terrace park as planned, after the rain, and part came home and ate theirs at the town hall. The Sioux Empire Fair has made several new additions to their premium list, for garden clubs and members that should bring out a fine display of fruit, flowers and vegetables. A tour of the Iowa Vegetable Growers was held on June 30th. that we should have taken the time to make as, the best in potatoes, onions and storage houses were seen in the best peat section of Iowa. Several of the growers have over 1000 acres of crop in. I like the way Sec. Fitch describes the American, Japanese and Mexican growers of Colorado; he thinks a lot of the common people of Mexico, they work hard and want recognition and an education. The men may drink too many beers and sometimes use a knife on each other, but they try to amount to something. These Catholic girls are modest and virtuous and many are as handsome as our own girls. (Editor's note. Sec. Fitch must have been away from home so long that calico began to look like silk, to him.) The 26 starch factories in Maine used 1,850,000 barrels, or 7632 car loads, and the growers received 24 million dollars for their potato crop; it has been the best season in many years. A year ago last November I slept in a cabin at Seaside, Ore. It was the most peaceful spot imaginable, only the waves of the ocean to break the quietness Next morning, no one was out on the beach but daughter and dad; now the bombs have dropped near there Have the birds got the upper hand in their fight on insect life or did nature take a hand in it also? Leaves and foliage of most all plant life is very free of insects The cabbages have had no dusting, but were free of worms on July 5th. and there are very few white butterflies around. The thousands of leaves on the wild grape arbor, around the house, show no holes and, I give the sparrows, wrens, robins and other birds that are very numerous this year, some of the credit for the absence of worms. The past four years we have grown a little head lettuce from plants transplanted in March and set in the field in April, but a few hot days and rain, ruins most of the crop, before it can be harvested. This year some of the seeding is doing well as the cool, moist weather has been unusually favorable. A lady brot in some tomato branches with the leaves turning brown. I have examined them and find there are no aphids, but a brown and black spotted condition of the leaves. A dusting of Bordeaux or sulphur may help, but the wilt resistant varieties are the best, when conditions are favorable for this disease, when the leaves most all fall off. I think it is about the same as blight on potatoes, or rust on wheat in the adjoining fields. A friend, whispers friendly, that the reason I am now on the back page is not on account of the poor article but the poor picture. She said "that blotch is not really on your forehead nor are there so many freckles." Well Stevens looks as if he had been hit with a fly swatter or something and Porter is very much spotted too; of course the Sec. has dug up a picture of long ago, also mos: of the others are of their younger days. The boys refused to weed any more parsnips because they got their hands and arms poisoned, so I tried to finish them and also got a terrible rash tho I thot I was immune to it. After a couple of weeks with sore wrists and scratching, I was told that buttermilk was a sure cure and, after the first application, I got relief and no more burning or scratching. Our annual meeting will be held before another of our magazines reach you and we hope to see as many as possible of you at Brookings. The sessions open at 10 o'clock Monday morning and after a brief business meeting, we will hear Dr. Hansen give his experiences of the past year. Monday afternoon will be devoted to a fruit and vegetable program, with Dr. Alderman of Minnesota, W. E. Dittmer, Dr. W. F. Bucholtz, Dr. Gerald Spawn, Mrs. G. M. Jorgensen and myself on the program. In the evening the banquet will be held and on Tuesday morning, a tour of the experimental grounds will be held. Tuesday afternoon Dr. L. C. Snyder, Frank I. Rockwell, Dr. W. F. Buchholtz, Harold Mattson of the Fargo station, Dr. G. F. Will, of Bismarck, E. C. Hillborn of Valley City and Sid Gurney will be on the final session. It is a good program, especially the tour, under the Direction of Professor S. A. McCrory, Tuesday morning. It is well worth coming a long way to attend.